



**Chandler · Arizona**  
*Where Values Make The Difference*

# NEXT TWENTY



**A New, Progressive Agenda for Chandler**

# NEXT TWENTY

A New, Progressive Agenda for Chandler



## City of Chandler

---

Boyd W. Dunn  
Mayor

---

Lowell Huggins  
Vice Mayor

---

## Councilmembers

---

Bob Caccamo

---

Trinity Donovan

---

Matt Orlando

---

Martin Sepulveda

---

Jeff Weninger

---

March 2007



## Acknowledgments

Many people and organizations contributed to *Next Twenty*

### Project Steering Committee

John Benton  
Benton Robb

Dean Brennan  
City of Phoenix Planning Department

Wendy Bruno-Thomson  
Countrywide Financial

Karen Cupps  
Salt River Project - Energy Solutions

Margaret Daniels-Thresher  
R & R Partners

Joe Diaz  
Galveston Neighborhood

Trinity Donovan  
Valley of the Sun United Way

Dr. Rufus Glasper  
Maricopa County Community College District

John Gleason  
Quan'tum Art, Inc.

Lloyd Harrell  
Former City Manager, Chandler

Gina Hill  
Chandler Human Relations Commission

Matthew Earl Jones  
Earl Jones Institute for Film & Television

Niels Kreipke  
Desert Viking Properties, LLC

Michael Mandell  
Arizona State Senate

Gary Manton  
Vhayu Technologies

Glenna McCollum-Cloud  
Chandler Education Foundation

Frank Nechvatal  
Retired Cleveland Municipal Schools  
(Ohio) Administrator

Rob Nicholls  
Motorola

Theresa Olson, Esq.  
Amkor

Norman Denton  
Intel

Mark Pentz  
City Manager, Chandler

Jeanette Polvani  
Chandler Unified School District

Ana Regalado  
ASU Polytechnic Campus

Scott Sasso  
Toyota Financial Services

Kirk Sibley  
Neighborhood Activist

Gary Todd  
Todd & Associates, Inc.

Ron Wojcicki  
98 South

### City of Chandler

W. Mark Pentz  
City Manager

Pat McDermott  
Assistant City Manager

Rich Dlugas  
Assistant City Manager

Doug Ballard  
Planning and Development Director

Pat Walker  
Management Services Director

David De la Torre  
Planner II

Richard Mulligan  
Economic Development Director

Brian Bosshardt  
Mayor and Council Assistant

Patrice Kraus  
Intergovernmental Affairs Coordinator

### Consulting Team

Mary Jo Waits  
President, Mary Jo Waits and Associates LLC

William Fulton  
President, Solimar Research Group

Doug Henton  
President, Collaborative Economics Inc.





# NEXT TWENTY

## A New, Progressive Agenda for Chandler

Since its founding almost a century ago by Dr. A.J. Chandler, Chandler has always embraced an ambitious agenda to be a great place – and it has always been on the cutting edge of change.

During the agricultural era, Chandler could have been just another farm town. Instead, the city embodied Dr. Chandler's vision of a high-quality, well-designed desert town that nurtured and supported the farming community around it.

During the era of rapid growth since 1980, Chandler could have been just another bedroom suburb. Instead, it leveraged this growth to become a high-quality employment center with an excellent community infrastructure that supports a high quality of life.

Now, however, Chandler is entering a new era. The city is gradually running out of land, and the old assumptions about place and prosperity can no longer be taken for granted. As Chandler faces this transition, it must once again find a way not just to follow the trend, but to lead it in a distinctive and innovative way.

*In order to face these challenges head-on, Chandler will need to focus on three things:*

- *Understanding the full range of forces that are establishing new challenges, expectations, and possibilities for cities across the globe.*
- *Recognizing the Six Realities of Chandler Now, including the city's limited land supply, economic transition, and new physical relationship to its host region.*
- *Adopting and pursuing five "Big Hairy Audacious Goals" or BHAGs ( BeeHags) that will force the city and its leaders to focus on a vision for the future and how to carry that vision out.*

The city, assisted by a team of consultants and a 30-member citizen task force, has been exploring ways to address these challenges. The result is *Next Twenty: A New, Progressive Agenda for Chandler*. *Next Twenty* provides a profile of Chandler Now, which includes a number of surprising and counterintuitive circumstances. The exciting thing, however, is the vision and agenda, which consists of five BHAGs for Chandler to pursue in the Next Twenty years.

# TEN BIG FORCES

## that Chandler Must Understand

It's no surprise to anyone that the world is changing. But the facts of just how the world is changing still have the power to startle. At first glance, these big-picture changes may seem to have little to do with Chandler. But it is essential to understand these changing national and global forces in order to shape Chandler's place in the world in the 21<sup>st</sup> Century.

In a recent *Arizona Republic* article, Mary Jo Waits and Jon Talton observed "Ten Big Forces" that are likely to be profound determinants of the size, shape and prospects of Arizona communities in the Next Twenty years.

### New Global Economy

In the past, America – and Chandler – have thrived on growing things and making things. But in the future, other nations will build and operate farms and factories cheaply. For developed nations such as the U.S., future growth depends on the creation of new ideas, where the chief good produced is "intangible" – a new thought, new business model, or new discovery that actually changes society.

### New Work

To survive in this new era of globalization, individuals and organizations in the advanced world must examine what they're doing to earn a living. In the U.S. today, the growth occupations require "right brain" skills – empathy, problem-solving, imagination and creativity. Many jobs requiring "left brain" skills – muscle power, manual dexterity and formulaic intelligence – move increasingly to workers in other countries or are lost due to changing technologies.

### New Business Model

The tremendous pressure on industry to innovate more – and do it more quickly – is transforming the business model. The new model, called "open innovation," requires companies to search the world for new innovations and for new locations next to first-rate universities and research consortia. That's a far cry from the traditional approach of keeping research and development (R&D) "in-house" and proprietary.

### New Science

With the human genome mapped, a new era in medicine is underway. In this new era, the feature that will increasingly differentiate one city or one country from another will be the quality collaboration of its universities, medical centers, clinics and hospitals that form the foundation for big medical breakthroughs and better patient care.

## Customized Production

Innovation in the 21<sup>st</sup> Century will primarily be built on production tailored to an individual – not mass – production. Think Starbucks’ customized cup of coffee and translate that to other arenas, such as “medicine tailored just for you.”

## Global Brain Power

The U.S. is in danger of losing the global brain power race. America has fallen behind Europe in the race for patented innovations. Six nations outperform the U.S. on R&D effort as a percent of gross domestic product, including Israel and Iceland. And half of all U.S. patents are granted to foreign-owned companies and foreign-born inventors.

## The Talent Gap

With an aging workforce and plateaus in education attainment, it is likely that the U.S. labor market will be experiencing a shortage, not a surplus. This shortage will hit harder at the cutting edges of scientific and technological creativity, and it is likely to reach epic proportions by 2010.

## Brain Drain-Brain Gain

The 2000 Census revealed a whole new pattern in metropolitan growth – a brain-driven, winner-take-all pattern that experts call “The Big Sort.” In terms of college graduates, the rich get richer. The 25 metro areas that already had the most college graduates in 1990 got more than their fair share of college graduates – twice as many, in fact.

## New Resource Paradigms

Skyrocketing global demand and limited reserves will put pressure on fossil fuels, water, fisheries and ecosystems. Meanwhile, most scientists agree that climate change, aggravated by fossil fuels, is real. These changes will also bring opportunities for alternative fuels and new technologies.

## “The World of Disorder”

This phrase, from *The New York Times* columnist Thomas Friedman, describes parts of the globe cut off from the capitalist revolution by poverty, dictatorial regimes and extremism. These areas have tremendous potential to disrupt the world in the decades ahead.

What does all this mean for Chandler now and in the future? On one level, the answer is straightforward. The city must know how it stacks up today: Is it a winner in the migration of talent? Is its economy based on “right-brain” creative work or “left-brain” routine work? Does it have a horse in the biosciences or alternative energy race?

But answering the “Chandler Now” question won’t be enough. The city will also have to answer this question: What exactly is Chandler supposed to do? How does Chandler ride rather than just react to the big forces so that it can compete and stand out? *Next Twenty* provides answers to each of these questions in turn.



# SIX REALITIES

## of Chandler Now



Not only is Chandler being affected by the “Ten Big Forces” identified previously – just like everybody else, but Chandler faces its own set of new realities. A lot has happened in the past 20 years. At the start of 1980, Chandler was the perfect reflection of far-flung exurbia marching toward suburbia with acres of raw land, implosions of planned communities, and a whole range of images around new malls, new streets, and new schools. In the words of metropolitan trend-spotter Robert E. Lang of Virginia Tech, Chandler was a “Boomburb” – a suburb growing at an incredibly rapid speed. But some of these stereotypes are flat-out wrong today, and it’s potentially dangerous to hang on to them. As Chandler contemplates its future, facing new realities seems imperative.

*Chandler is a prototypical Boomburb – has a population in excess of 100,000, kept double-digit growth rates during the past few decades and is NOT the largest city in the region.*

\*Even though many cities on this list were founded prior to 1950, including Chandler, the study only examined the period 1950-2000, and so the starting date for many cities is pegged at 1950.

### Top 10 “Boomburbs,” 1950-2000

	BOOMBURB	STATE	METRO AREA	YEAR STARTED	STARTING POPULATION	2000	% INCREASE
1	Irving	TX	Dallas	1950	2,621	191,615	7,211%
2	Plano	TX	Dallas	1960	3,695	222,030	5,909%
3	Henderson	NV	Las Vegas	1950	3,643	175,381	4,714%
4	Chandler	AZ	Phoenix	1950	3,799	176,581	4,548%
5	Arlington	TX	Dallas	1950	7,692	332,969	4,229%
6	Peoria	AZ	Phoenix	1960	2,593	108,364	4,079%
7	Thousand Oaks	CA	Los Angeles	1960	2,934	117,005	3,888%
8	Lancaster	CA	Los Angeles	1950	3,594	118,718	3,203%
9	North Las Vegas	NV	Las Vegas	1950	3,875	115,488	2,880%
10	Glendale	AZ	Phoenix	1950	8,179	218,812	2,575%

Source: Fannie Mae Foundation



One way to summarize Chandler's transformation is to think in terms of acts. In Act I, the Outer Suburb-years, large parcels of raw land and good climate powered growth. The lead characters in this act were middle-class families, whose search for houses with back yards, and high-tech firms, whose search for large manufacturing sites, led them to the periphery of the Phoenix metropolitan area.

In Act II, the Inner Suburb-years, the city begins to evolve. Vacant land fades into the background, while a more urban complexity and entrepreneurial vibrancy fuels the economy. The central figures in this act are knowledge workers, who can live anywhere but decide to stay and grow a business in Chandler – and city leaders, who invest in assets that appeal to families and young professionals and who make sure the city not only has choices in neighborhoods but has the type of mixed-use, synergistic business districts that appeal to cutting-edge companies and entrepreneurial talent.

If you put the two acts together, you end up with at least six specific new realities that document Chandler's transformation – and present different challenges and opportunities for the future.

# REALITY ONE

## FROM OUTER SUBURB TO INNER SUBURB

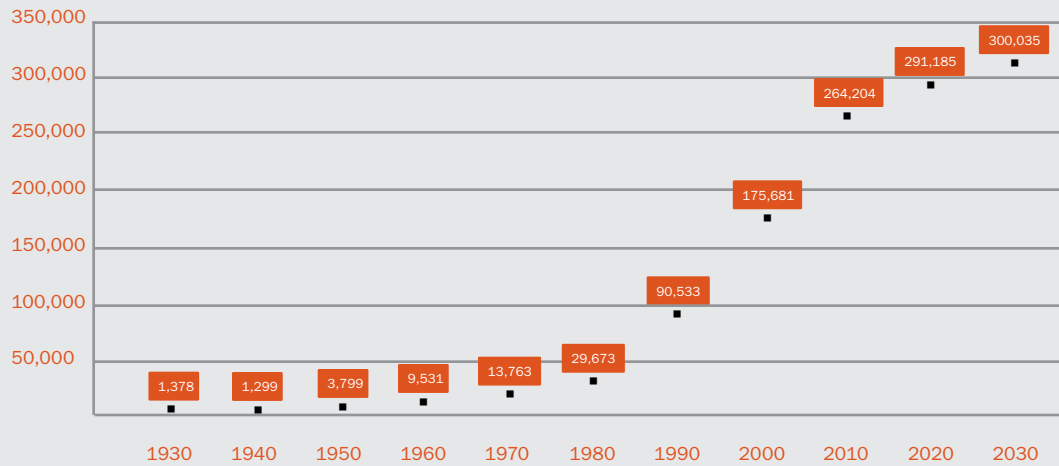
For the past quarter-century, Chandler has been a fast-growing community on the edge of metropolitan Phoenix. Today, however, the “first wave” of metropolitan growth is moving beyond Chandler – washing onto new locales even farther out that still have large tracts of developable land. In other words, Chandler has begun its transformation from an “outer” suburb to an “inner” suburb – a transition that will bring many critical advantages – such as close-in neighborhoods accessible to the region’s “Big Deal” entertainment and research university – but will also bring many of the problems associated with this inner, more mature status – traffic congestion, old infrastructure, high-priced homes.

For 60 years after its founding by Dr. Chandler, the city was an agribusiness center. Beginning in the 1970s, however, the Phoenix metropolitan area began to grow rapidly outward. These waves of suburban-style development first washed onto the close-in suburbs of Tempe, Scottsdale and Mesa, all on the valley’s east side. By the early 1980s, the waves pulsed out to Glendale on the west side of Phoenix – and to the southeastern suburb of Chandler. Over the past quarter-century, as its population has grown from 30,000 to 250,000, Chandler also emerged as one of metropolitan Phoenix’s “Big Five” suburbs, along with Tempe, Scottsdale, Mesa, and Glendale.

But now Chandler’s position – like that of the other Big Five – is changing fast. Current projections from the Maricopa Association of Governments show that over the next 20 years, the city will settle into a “mature suburb” growth pattern similar to the other four cities. This is especially true after 2010. It will also serve increasingly as an employment center for Casa Grande and other communities in Pinal County.

The Maricopa Association of Governments’ forecast of population growth shows that currently Chandler is “straddling the line” between fast growth areas and slower growth areas. Because the outward expansion of employment trails the outward expansion of population,

## Chandler Population, 1930-2030



Source: Maricopa Association of Governments 2010-2030 Projection

Chandler will still be in a fast-growing ring of employment growth until 2010. Between 2010 and 2020, however, the picture will change and Chandler will be inside the metropolitan region's slower-growth area.

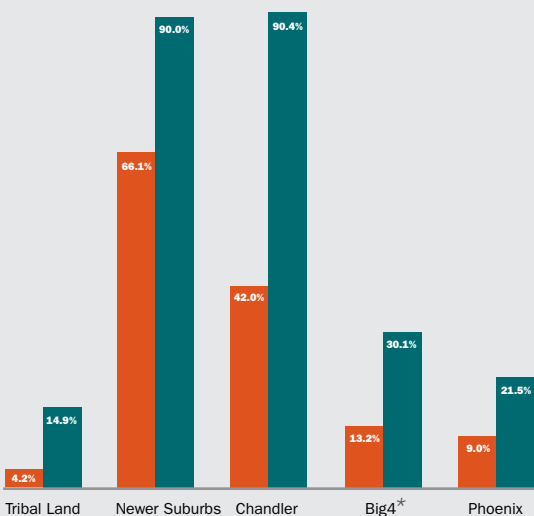
The dominant images of America's mature suburbs are well known: older infrastructure, traffic congestion, regulatory delays and pricy homes pushing middle-class families and businesses outward, while leaving behind abandoned strip malls, lower income families and declining tax bases. But the focus on the challenges of inner suburbs often obscures the opportunities. Many inner suburbs thrive in a post-suburban era.

It's a different game, however, and it requires a different mindset and different tools as well. And Chandler will need to play this inside game well because the facts are pretty plain: the issues tend to get tougher, the stakes higher and the odds of success lower as cities march toward urban core status.

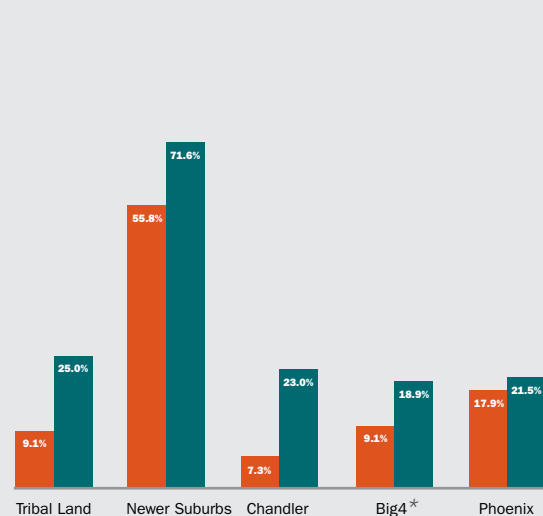
## Growth in Housing and Jobs

\* Scottsdale, Tempe, Mesa and Glendale

2000-2010



2010-2020



Source: Solimar Research Group; Maricopa Association of Governments Data

# REALITY TWO

## FROM LAND RICH TO LAND POOR

As the wave of first-generation suburban growth moves farther out, the days of cheap dirt in Chandler are over. And as Chandler moves from an outer suburb to an inner suburb, it is gradually transitioning as well from being land-rich to being land-poor – an inconvenient truth that changes forever the city’s growth dynamics.

Most of this growth has occurred in the form of single-family homes. As of 2000, the city had 66,500 dwelling units, 72 percent of them single-family homes, and 19 percent of them townhouses and condominiums. Most houses are in large tracts built out at 2.5 to 3.5 units per acre. During this period of rapid development, Chandler’s older neighborhoods saw little new investment, and in some areas both the housing stock and public infrastructure show signs of neglect.

As of today, 85 percent of Chandler’s land – some 32,000 acres – is already developed, entitled, or planned for community open space. Only 15 percent – 5,800 acres – remains undeveloped. Most of this land is currently reserved in the city’s General Plan for commercial and office development. This land is mostly located in the south Price Road and Chandler Airpark areas as called for in the General Plan. And Chandler is now landlocked – with no annexation opportunities beyond its municipal planning area.

Among other things, this transition will lead to a shift in the local economy and in the city’s revenues. Boomburbs gain huge – but temporary – advantages from the construction industry. As Chandler matures, it will no longer be able to rely so much on construction jobs, taxes and fees related to new development.

The City Council faces tremendous pressure from residential developers to use most of its precious remaining land assets for “more of the same” – large-scale, suburban-style residential development. But Chandler’s future cannot be the same as its past. As the land supply dwindles, Chandler must focus on new things.

Now is the time to be clear that the goal is quality. Chandler can no longer afford to accept whatever developers offer. The City Council and the community alike must be more selective about new development, focusing on high-quality job centers, and let “high quantity” residential and business growth go to other, cheaper areas.



## Chandler Land Supply

	Acres	Percentage
<b>Developed</b>	<b>23,217</b>	<b>61.8%</b>
Residential	15,969	42.5%
Non-Residential	7,248	19.3%
<b>Entitled</b>	<b>4,780</b>	<b>12.7%</b>
Residential	3,371	9.0%
Non-Residential	1,409	3.7%
<b>Vacant</b>	<b>5,824</b>	<b>15.5%</b>
Residential	1,296	3.4%
Non-Residential	4,528	12.0%
Open Space (Current & Planned)	3,770	10.0%
<b>Total</b>	<b>37,591</b>	

Source: City of Chandler, April 2005

Today, 15% of Chandler's land remains undeveloped.

Strategic recycling of already urbanized land is essential as well. Chandler can create more capacity for growth by intensifying development on passed-over land and underutilized parcels in older parts of the city.

Now is also the time to invest in a livable community that is attractive to current and future residents and businesses. This means refurbishing older neighborhoods, bringing downtown to life, and working closely with businesses and institutions of higher education to make the best use of remaining industrial lands.

In short, Chandler switches from playing an “outside game” – in which most prosperity comes from developing raw land – to an “inside game” – in which prosperity comes from using its existing areas more wisely and being more selective about new development.

**The Game has Changed for Chandler: Prosperity comes not from developing raw land but from using existing areas more wisely.**

From: The Outside Game	To: The Inside Game
Preserve Open Spaces	Create Vibrant Mixed-Use Centers
Focus on Quality of Life in Master-planned Communities	Focus on Quality of Life in the Neighborhoods and Infill Housing
Strict Controls That Seek to Manage New Suburban Development	Design Standards That Seek to Make Every Neighborhood Distinctive
Development and Impact Fees	Incentives That Seek to Recycle Old and Underutilized Buildings

# REALITY THREE

## FROM BIG AND CORPORATE TO SMALL AND NIMBLE

One of the things that has really distinguished Chandler from the other Boomburbs is that it isn't just a bedroom community. In the past two decades, Chandler has built an economic base that any city across the U.S. – Boomburb or not – would envy. The city is known for successfully recruiting several high-technology giants. Many outsiders, even long-time residents, may be surprised to learn that the city is becoming a hub of not-so-big enterprises, which spans science and technology, arts and entertainment, and finance.

Between 1990 and 2003, Chandler's jobs base increased 7 percent per year – almost as much as the population. And these jobs are of much higher quality than the jobs in the rest of the region. Indeed, Chandler had the highest wages in the entire region. The average wage in 2001 was \$43,000 – 16 percent higher than the average wage in the second-ranked city, Scottsdale.

In large part, these high-paying jobs are in the high-tech and corporate sectors, which have established a strong presence in Chandler over the last 20 years. Because of companies such as Intel, Motorola, Freescale, and Microchip, Chandler is home to more than 21,000 manufacturing jobs. In addition to semiconductors and semiconductor machinery manufacturing, Chandler also has specialization in some defense-related manufacturing.

The City Council is accustomed to thinking that its economic base is secure because of Intel's 11,000 high-paying jobs – as well as other high-paying companies such as Motorola, Microchip, Freescale, and Orbital Sciences. But manufacturing employment is in decline worldwide – even in China. In the global marketplace, no manufacturing town in America can take its plants for granted, and Chandler is no exception. Motorola's employment is stagnant and

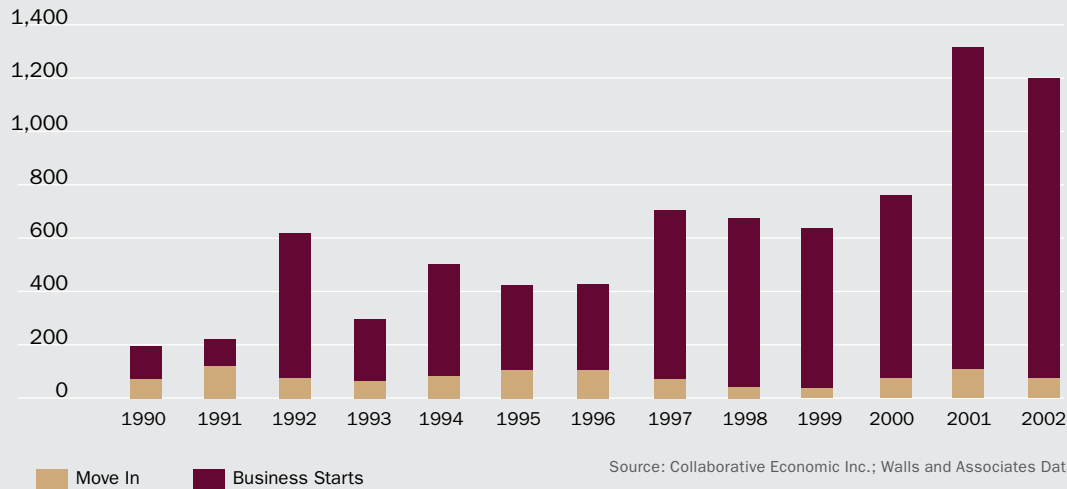
may decline. Other companies have indicated that they need reasons to continue doing business long-term in Chandler.

Furthermore, recent growth in the local economy – especially in the corporate office parks along the Price Road corridor – has not involved high-tech companies paying six-figure wages. Since 1990, manufacturing employment growth has lagged behind the citywide total. Many service sectors have seen faster employment growth.

Fortunately, there is a silver lining on the jobs front: Chandler has been “birthing” thousands of small companies under the radar screen. According to a database maintained by Walls & Associates – as analyzed by Collaborative Economics – most economic activity in Chandler is not being created by luring new businesses into town. It's being created by new, homegrown businesses – often started by entrepreneurs who are being spun off of the big companies in town.

In 2002, for example, Chandler's business base grew by 1,200 firms, and 93 percent of these firms – 1113 – were homegrown. Only 87 businesses – or less than 3 percent – were recruited from out of town.

## Annual Number of Chandler Business Formations and Firms Moving In



Most economic activity is being created by new, homegrown businesses.

Although some of the recruited businesses were undoubtedly large corporations with a large number of jobs, the overall message is clear: As Chandler matures, the city must tend to its existing base of businesses and nurture its homegrown entrepreneurs in order to thrive. Many of Chandler's firms are small, with just three to five employees. Firms in professional, scientific and technical services are on average about four employees, making their contribution to Chandler's economy more difficult to "see." However, in the aggregate, these firms accounted for nearly 4,000 employees in Chandler in 2003.

Globally and nationally, the trend is toward an "idea economy" in which the conceptual and creative ability

to invent and market new products and services is the ultimate source of economic growth – not the physical ability to build something on, say, an assembly line of the sort seen in the industrial age. The more of these innovation-based companies there are, the more they spin off new firms, and the more second- and third-tier support businesses get established. And these "soft" companies, even if they are spun off of a large corporation, have little interest in the suburban office park. Instead, they desire mixed-use locations with clusters of similar companies. They demand flexible office space, access to university students and research facilities, and a vital community center.

## Industry

## Change in Jobs, 1990-2003

	1990	2003	Number Change	Percent Change
Agriculture	706	450	(256)	-36%
Mining	67	215	148	221%
Utilities	27	15	(12)	-44%
Construction	2,821	5,492	2,671	95%
Manufacturing	10,332	21,872	11,540	112%
Wholesale Trade	1,235	2,569	1,334	108%
Retail Trade	1,747	3,305	1,558	89%
Transportation & Warehousing	226	561	335	148%
Information Services	187	734	547	293%
Finance and Insurance	367	905	538	147%
Real estate and rental and leasing	891	1,132	241	27%
Professional, scientific and technical services	1,199	3,039	1,840	154%
Management of companies and enterprises	111	28	(83)	-75%
Admin/support & waste mgmt/remediation	1,199	2,398	1,199	100%
Educational services	429	972	543	127%
Health care and social assistance	429	4,025	3,596	838%
Arts, entertainment and recreation	572	3,520	2,948	515%
Accommodation and food services	1,287	2,503	1,216	95%
Other services (except public administration)	1,104	5,672	4,568	414%
TOTAL	24,936	59,407	34,471	139%

Data prepared by Tom Rex of Arizona State University

# REALITY FOUR

## FROM LAND RICH TO TALENT RICH

Every successful place turns the accomplishments of one generation into an endowment for the future. California, for example, converted the raw material of gold into wealth, then used that wealth to endow Stanford University, which then spawned technological innovation so vast that Silicon Valley is a dominant force in the world economy a century and half after the Gold Rush.

Now that the Boomburb era is ending, it is time for Chandler to value and understand how to use its most important Boomburb endowment – a large and highly educated population.

The rapid growth of the last quarter-century has converted farms into subdivisions and planned communities that now serve as home to one of the most desirable labor pools anywhere in America. Chandler may have gone from being land rich to land poor, but in the process it has gone from talent poor to talent rich.

Indeed, Chandler's quality of life and high-wage job base have attracted a highly educated populace. Despite Chandler's extremely rapid growth, 33 percent of the city's adult residents (age 25 and up) hold a bachelor's degree or higher, compared to 26 percent of adults in Maricopa County and 12 percent of adults in Pinal County. The location of Intel, Motorola, Microchip, Orbital Sciences and similar companies in Chandler has had many benefits – including the creation of a large and extremely well-educated labor pool in the city.

The city also does well with the twenty- and thirty some-things. About 44 percent of Chandler's population is between the ages of 20 and 44 – this compares to 39 percent across Maricopa County and 33 percent across Pinal County. This young and educated labor pool is likely to become one of Chandler's most important assets in the years ahead – especially if the workers' entrepreneurial skills can be tapped. The trick is figuring out how to keep them.

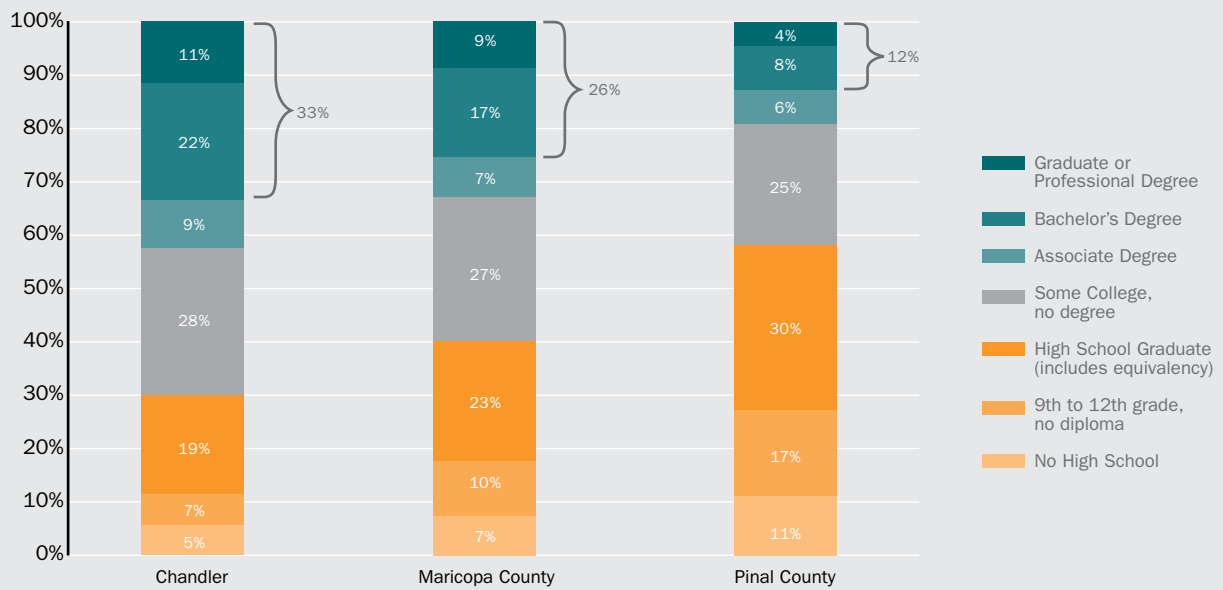
No city these days can afford to assume that highly educated residents will “stick around.” In the future, the city will have to make sure that Chandler remains an attractive place for these residents to continue living – and find ways to connect with them to nurture home-grown economic development.

Chandler shines if talent is looking for good climate, low living costs, and basic entertainment. But when the calculation gets more complex – including innovation capacity, distinctive amenities and choices in lifestyles – Chandler struggles to distinguish itself. Mainly, Chandler – and the Phoenix region in general – is being outclassed by other cities such as Austin and Seattle that have been working off a new list of golden attributes for sometime now. According to one observer, “talent magnet cities are where work is smart, the culture is cool, and the environment is clean.”

This is a good time for Chandler to also be thinking about distinguishing itself as a culturally diverse community. Like most other cities in the Southwest, Chandler is becoming more ethnically and racially diverse as well. The 2000 Census showed the city's population to be about 69 percent white, 21 percent Latino, and about 10 percent either Asian or African-American. All these racial and ethnic groups – especially the fast-growing Latino population – must be included in the mix as part of the homegrown talent pool for economic development.



## Percentage of Residents Ages 25 and Older by Educational Attainment

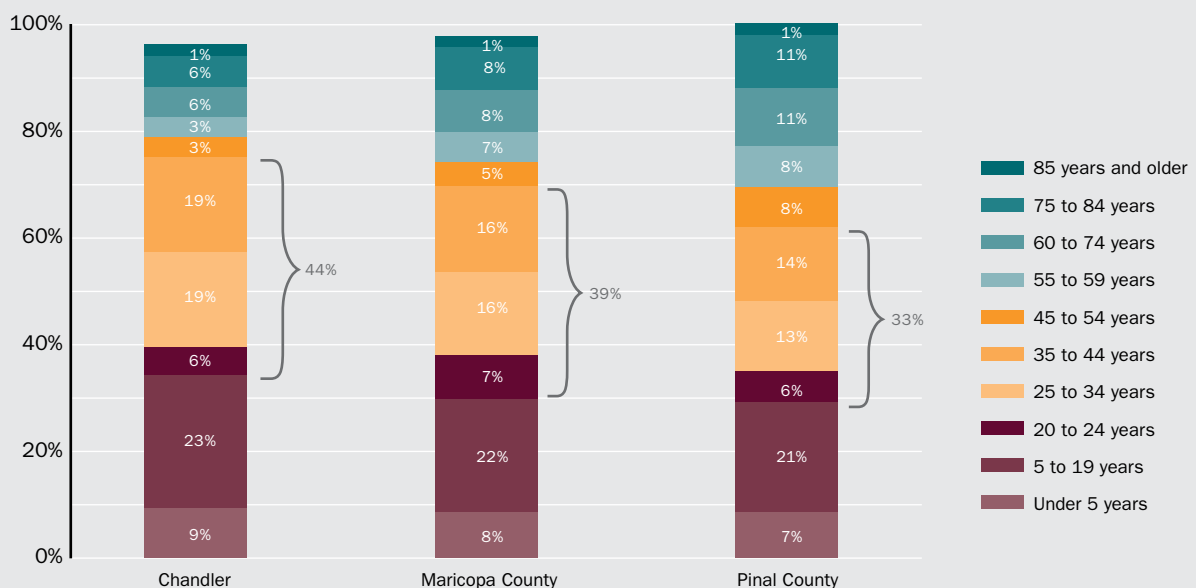


2000 U.S. Census

Chandler has a strong base of highly educated residents.

About 44% of Chandler's population is between the ages of 20 and 44.

## Percentage of Population by Age



2000 U.S. Census

# REALITY FIVE

## FROM INHERITED ASSETS TO CREATED ASSETS

In the past, Chandler – like many other Boomburbs and fast-growing areas – has seen its destiny shaped by what might be called its “natural” assets: the warm climate, the availability of land, and so on. These are the assets that pioneers from Dr. Chandler forward found and effectively used in building Chandler during the agricultural and Boomburb periods.

Chandler will continue to benefit from a warm climate and an advantageous location in a prosperous metropolis and a fast-growing part of the country. But it has become clear that 21<sup>st</sup> Century places will succeed because of assets they create, not assets they inherit.

Created assets are assets that the community itself has built up over time. There are all sorts of created assets, but in the 21<sup>st</sup> Century economy – especially in a post-Boomburb city – some are more important than others. These include:

- Universities, medical and research institutions – Eds and Meds – that serve as anchors in knowledge-economies and that can form the basis for new economic spin-off opportunities
- Recreational, cultural, and civic institutions that will help to attract and retain “top talent”
- A strengthened sense of “place” – with a lively nightlife as well as a distinctive and historic fabric – that will solidify a sense of community and commitment from people and organizations alike.

After a quarter-century of extremely rapid growth, Chandler has already begun to create the assets that it will need to succeed in the future. The city doesn’t have a major university, but it does have a high-tech manufacturing base that could be tied to Arizona State University and other research institutions. It has an array of recreational opportunities and an historic downtown core – both of which can be augmented with civic, cultural, and entertainment opportunities that will help Chandler stay competitive in the 21<sup>st</sup> Century.

The one asset Chandler can’t create is more land – or, at least, more undeveloped land. But as the city’s build-out strategy has shown, Chandler can create more capacity for growth by intensifying development on passed-over land and underutilized parcels in older parts of the city. And Chandler can start responding to the reality that density, mixed use and proximity play an important role in innovation, because the concentration and interaction of firms AND people facilitate the flow of information and knowledge exchange. As Austin and San Diego have learned, the possibility of innovation increases exponentially when firms and people start to network – and increases again when diverse people, related industries, and research institutions are put in close proximity.

**No city has a permanent advantage. Every city must work hard to create more assets and take maximum advantage of the assets it has.**

#### **Inherited Assets**

Natural Resources  
Warm Climate  
Geographical Location  
Large Population

#### **Created Assets**

Top Universities  
Research Centers  
Talented People  
Entrepreneurial Culture  
Networks  
Distinctive Amenities  
Vibrant Downtowns

## MAKING YOUR OWN LUCK: The San Diego Technology District: San Diego Stays on Top with Strategic Moves to “Build” an Innovation Environment

Today, many regions envy San Diego’s biosciences stature. But it wasn’t always so. The city had little historical tradition in this area and depended heavily on tourism and U.S. military presence for economic growth. San Diego’s ascent to the top is the result of good weather and geography – AND five decades of proactive public and private sector planning, investing and coordination. It started with the Salk Institute when Dr. Jonas Salk visited the region and decided to set up his research center on the Torrey Pines Mesa in 1960. The city set aside 27 acres of ocean-front property to kick off the location of the Salk Institute and draw more new research institutes. Local government and business leaders teamed up to lobby and get a University of California campus built in La Jolla in 1962. Other research institutions followed in the 1970s, drawn again by climate, and land and the city’s accommodation of them through zoning and land grants.

Today North Torrey Pines Road is a densely packed 2-mile stretch with Scripps Research Institute, Salk Institute for Biomedical Studies, and University of California San Diego (UCSD). It is a “built” hub of innovation and entrepreneurship because it offers expertise and interaction. As the Vice President of the Salk Institute says, “we can throw a rock and hit UCSD. I can hit a golf ball and hit Scripps. Everything is within walking distance. That means more heads get together and we do a lot of collaboration.”

# REALITY SIX

## FROM Reactive TO Proactive

During the Boomburb period, the Chandler City Council did a good job of managing extremely rapid growth – creating many quality neighborhoods and business districts and ensuring that top-quality infrastructure and community facilities were constructed. To a certain extent, however, Chandler’s approach during the Boomburb years was inevitably reactive. The wave of growth emerging from Phoenix washed over Chandler almost faster than the city could deal with it, and events were moving quickly. Most cities in such a situation can do little more than react. They may react skillfully and nimbly, but inevitably with such a crush of development at hand, the city will be behind the curve.

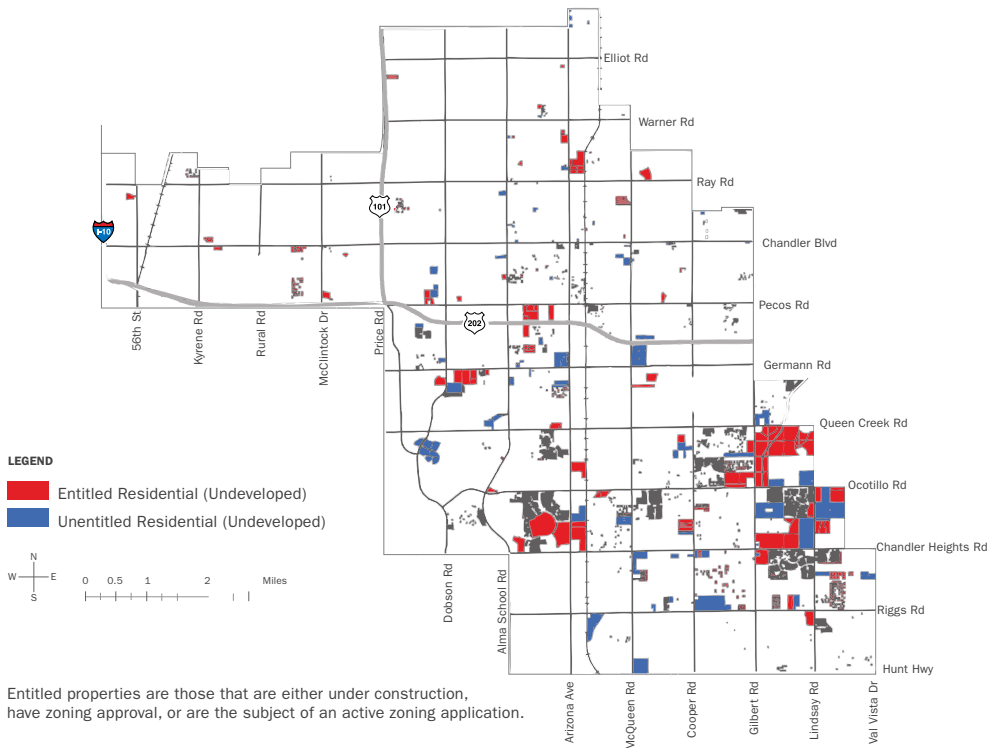
In the post-Boomburb era, however, Chandler cannot afford to be behind the curve. Instead of being reactive, the city must be proactive. Instead of simply accepting whatever comes along, the city must stick to its strategic vision as an employment center and act accordingly. The City Council has committed most of its remaining land resources to commercial projects, and Chandler cannot be distracted from this balance of jobs and housing by short-term pressure from residential developers. At the same time, the City Council still has to find a formula for ensuring that the jobs coming identify Chandler with the future, not the past.

Maybe the most important part of being proactive, rather than reactive, is simply understanding that in the post-Boomburb era, the evolution of Chandler will be a dynamic process. Cities planning for the first generation of suburban growth tend to think in terms of the “end-state” – that is, they are planning for a time when all the raw land is consumed and the city is “done” or “built”. But both real estate development and economic development are ongoing processes that will continue long beyond build out, as cities, community members, developers, and property owners seek better uses for already-developed land and buildings.

Being more pro-active on the real estate development front simply means that future growth must be driven not just by the short-term plans of developers, but by the community’s long-term vision. Because land is scarce, opportunities for change are more limited, and the city must be more strategic and focused. The city’s strategic goals for six different growth areas (right) represent a good beginning – and should not be sacrificed in order to facilitate short-term residential growth. But at the same time, the city’s strategic goals for its six growth areas need to be quickly evaluated through an innovation economy lens and post-suburban framework because these areas are essentially the city’s best chance to proactively build its Next Twenty economic identity and city brand.

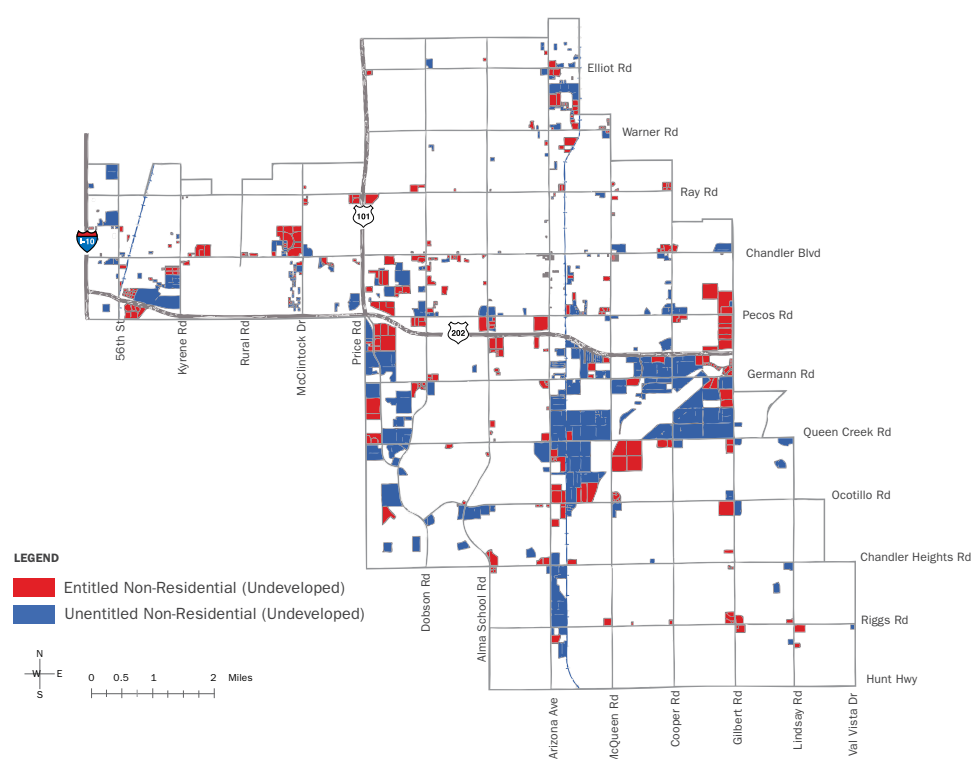


## City of Chandler Remaining Residential Properties as of July 1, 2006



Source: City of Chandler Long Range Planning Division

## City of Chandler Remaining Non-Residential Properties as of July 1, 2006



Source: City of Chandler Long-Range Planning Division

# CHANDLER'S APPROACH TO FUTURE GROWTH

Although Chandler has seen extraordinary growth in population and housing during the last 25 years, the city has sought to plan for the future in a way that will provide balance within the city. To that end, the city's General Plan identifies six different growth areas, each with its own characteristics. These six areas are:

1. Santan Freeway/Price Freeway Area: Retail development, medical facilities, and higher-density housing in this area.
2. Downtown Chandler and Surrounding Residential Neighborhoods: In the historic core, civic and cultural activities and infill development.
3. East of the Intersection of I-10 and Ray Road: Speciality retail, entertainment, big-box retail and restaurants.
4. Chandler Airpark Area: Business compatible with surrounding Chandler Municipal Airport.
5. South Price Road Campus Employment Corridor: Major, campus-style corporate employers.
6. Southeast Chandler: Reserved for low-density residential development.

# Can't Stop Thinking About Tomorrow

Together, the Ten Big Forces and the Six Realities of Chandler Now raise the stakes for the city's public, private, and community leadership. Chandler must “take it to the next level” now. A new and more sophisticated effort is required to sustain the economic and quality of life gains of the past 20 years and to position Chandler for even greater gains in the Next Twenty.

This new effort will require significant investments in both capital projects and programs by the city and other community partners. It will certainly require a new level of collaboration among existing governmental leaders (including city department heads, city council members), private sector leaders (including the Chamber of Commerce), other community leaders (including community colleges and K-12 education), and residents – with all parties focused on the talent, the entrepreneurial business support, and the quality of life necessary to sustain Chandler's competitive advantage in a post-suburban era.

Chandler will lead – or not – depending on whether Chandler’s leaders and citizens have the desire and discipline to make choices that support or undermine the city’s position in the rapidly evolving Greater Phoenix region and a fiercely competitive world. In the future:

- Will Chandler figure out how to benefit from its new locational advantages?
- Can the City Council and civic leaders retain the current consensus on how to best use Chandler’s remaining land?
- Will Chandler make the major investments required to gain the assets that matter most in an economy driven by innovation and talent?
- Will Chandler also make the investments required to remain a good location for new, small and innovative businesses?
- Will Chandler develop the kind of collaborative academic-government-business partnerships that will be critical for future prosperity, including strengthening the value of its large high-tech companies, in a fiercely competitive global economy?
- Will Chandler avoid NIMBY (Not In My Backyard) – like opposition to the infill, redevelopment and density that could restore older neighborhoods, create pedestrian-friendly mixed use, and attract new industries?
- As economic development increasingly becomes a “war for talent,” what is Chandler’s competitive advantage for attracting talent and rooting it in place?

The next section describes the vision and five strategic efforts that will start to answer these questions.

# Vision: Chandler as a 21<sup>st</sup> Century City

One of the most remarkable things about Chandler is not the quantity of its growth but the fact that most civic leaders and active citizens seem to have a sense of greatness about Chandler's future. They don't view Chandler as simply a suburb but as a major city in the Phoenix area – a multi-faceted community filled with top places to work, things to do, places to go, and a vibrant and diverse set of neighborhoods.







During the course of this project, it became clear that Chandler's civic leaders have a strong and sure vision for the future of their community. This vision can't be reduced to only one sentence, but it can be expressed in four bullet points:

- Chandler has a strong sense of its emerging role as a great city in the Phoenix metropolitan area. The city and its people should be aggressive in pursuing the city's destiny and, in particular, using the "built environment" – the neighborhoods, business districts, community parks, and civic spaces such as downtown. Unlike many other great cities, Chandler does not have dramatic or distinctive natural features – such as mountains and water – and so it must work harder to build places that will become the city's signature locations.
- Chandler should focus on being an active and well-rounded city – a city where people can live, work, and play, and be "active" in all senses of the word. The city should be filled with a wide variety of activities for the residents – arts and culture, shopping, active recreation, and outdoor recreation opportunities.
- Chandler must place a high priority on building an even richer set of neighborhoods in the future, each with its own history, cultural flavor, arts and culture amenities, and entertainment gems (ethnic restaurants, artisan galleries, parks and recreation). These amenities and neighborhoods should be viewed as assets designed to help attract individuals, families and businesses that can increasingly locate anywhere.
- Chandler needs a diversified economy and community so that it is not overly dependent on one industry or one type of talent pool. The mix must include entrepreneurs and small firms in a range of industries, including health and biomedical services, arts, recreation and the information industries.

This new vision is a tremendous asset for Chandler, because most maturing Boomburbs don't have one. But it has to be married to an action plan.

## Five BHAGs (BeeHags) for Chandler

In his book “Built to Last,” business guru Jim Collins suggested that great companies must set “Big Hairy Audacious Goals” – big projects that move the company toward its goals and provide focus and motivation for the company’s people.

As Chandler moves into the post-Boomburb era and seeks to implement its vision for the future, the city should adopt five BHAGS – five big projects that will provide the foundation for Chandler’s transition and its continued prosperity in the 21<sup>st</sup> Century. Each is important not only for itself – but also for the larger point that Chandler makes its own luck.

# BHAG ONE

## A MODEL OF TRANSFORMATION

### “Who moved my city?”

This is a question Chandler residents might ask as they realize their city is no longer the exurban outlier they moved to five to ten years ago. It’s clear that while the city still retains many of its suburban traits, it is also beginning to take on the central-city-like characteristics that normally come with age and build out. This means Chandler’s challenge increasingly lies with anticipating and planning for this changing condition.

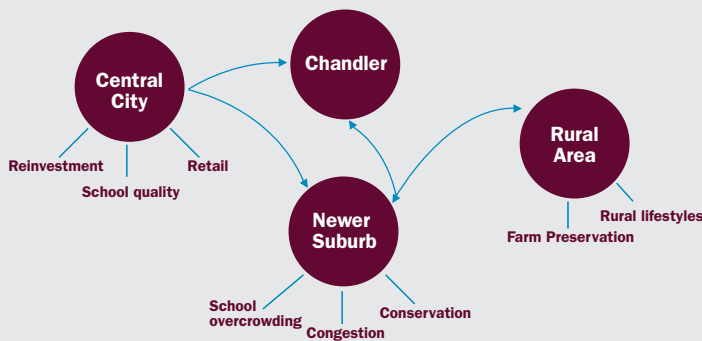
Fortunately, it’s easy to anticipate some of these tendencies. Chandler is a microcosm of what is occurring in older, close-in suburbs everywhere – and that means it is likely to face struggles regarding housing affordability, concentrations of immigration populations, increased density as well as outmoded housing and commercial buildings. To get ahead of these issues and trends, Chandler can set the goal of being a model for suburban-to-urban transformation.

This is a tall order. Tempe, with its university-town atmosphere, and Scottsdale, with its resort cachet, have a big head start. Mesa also has an ambitious arts and culture agenda, and Glendale recently snagged the Cardinals. How can Chandler get ahead of this curve? By recognizing its unique role in the Valley of the Sun. It is no longer a fast-growing, new suburb. But neither is it an “urban” suburb, like Tempe or Scottsdale. Rather, it is on the cutting edge of suburbs in transition.

As stated throughout *Next Twenty*, Chandler is running out of land and can no longer take first-generation suburban growth for granted. Now the city must learn how to take advantage of this new situation – and do it in a way that still distinguishes Chandler from Scottsdale and Tempe. Toward that end, Chandler should take the following steps:

- **Aggressively market specific land resources – including vacant buildings and land available for reuse.** The city must take the lead in identifying those parcels and buildings that are key to its economic future – not just large chunks of raw land but underutilized parcels – and make sure that the right businesses know they are available. This means doing far more than simply inventorying these resources – and more than just showing large vacant parcels to big corporations. It means matching older buildings and smaller parcels with the emerging entrepreneurs who will serve as the keys to the new economy.

### Chandler: Part Urban, Part Suburban



- **Make infill development as easy as traditional suburban growth.** Chandler has a well-earned reputation as a good place for high-quality suburban developers to do business. Now the city must become just as good a place for high-quality infill developers to do business. This means understanding that infill projects are different – they are smaller scale and finer-grained. But it also means setting clear, high-quality development standards and allowing developers who meet those standards to gain their project approvals quickly and easily.
- **Accept higher densities and mixed-use in selected locations.** Higher residential densities and mixed-use developments are an essential part of the transition to a mature suburb. Chandler will simply not succeed in the 21<sup>st</sup> Century without creating its share of this kind of development. But in a city where 70 percent of the residences are single-family homes, this kind of development isn't appropriate for every neighborhood. Therefore, the key for Chandler is to accept higher densities and mixed-use development – but in key selected locations, like downtown, along commercial corridors, and perhaps in certain locations along the Price Road corridor. This strategy will ensure that the city has lively and interesting districts, while protecting most single-family neighborhoods from incursion.
- **Prepare for an affordable housing crunch. Housing prices almost always increase significantly in a mature suburb.** The average home price in Chandler is now approaching \$300,000. In order to maintain a balance among businesses and residents, Chandler must get ahead of this curve by creating an affordable housing trust fund and endowing it with funds from various public and private sources.

## THE BIGGER PICTURE: Close-in Suburbs Need an Agenda

Much attention has been directed to central cities and fast-growing exurban areas, but the nation's cities that lie “in-between” receive little attention – despite the fact that combined, they contain 20 percent of the nation's population. Over the years, urban scholars have given these places many labels – including older suburbs, inner-ring suburbs, first-tier communities, and close-in suburbs. This year, The Brookings Institution offered a new label, “first suburbs,” partly to reflect the sequence of suburbanization, partly to avoid any pejorative term that would inhibit market investment, and partly to acknowledge that these places are worthy of special attention from federal and state governments, private investors, political pundits, and academics.

Whatever the term, these places occupy a unique place in the hierarchy of American jurisdictions. Neither fully urban nor completely suburban, America's first suburbs, or close-in suburbs have a unique set of challenges – very different from those of the center city and fast-growing newer places. Yet they exist in a policy blind spot with little in the way of state or federal tools to help them adapt to their new realities and secure a role as competitive and quality communities.

Observers and scholars of metropolitan landscapes have begun looking at first suburbs throughout the nation, examining their similarities and differences, and exploring policy agendas tailored specifically to these distinctive places. One of the more encouraging metropolitan trends over the last several years is the increased attention on this part of metropolitan America, reports The Brookings Institution. This attention not only provides Chandler forewarning of challenges that lie ahead, but also establishes the need for the city to develop and articulate its own policy agenda so it can be well-positioned in regional, state and national conversations about larger issues not typically on Chandler's radar screen.

## A CREATIVE DISTRICT

### in the Downtown and Along the Arizona Avenue Corridor

Most Boomburbs have no history and no sense of place. But Chandler is different. Chandler has a deep history going back almost a century, with a distinctive downtown area that is rooted in the City Beautiful movement, and a venerable resort hotel with a golf course right on the main square.

A key part of prosperity and success in the 21<sup>st</sup> Century is a deep and well-established sense of place. Locations throughout the world are competing for talent and businesses – and talent and businesses are looking for distinctive locations with a strong sense of place.

The answer likely lies not only in restaurants and bars and the San Marcos, but – as in Scottsdale and elsewhere – in creative entrepreneurs looking for a distinctive neighborhood to set up shop.

Downtown Chandler is already undergoing a revival. But, in order to prosper in the post-Boomburb era, Chandler must take downtown revitalization to the next level by making it an attractive area for housing and for entrepreneurs. The goal should be to expand the revitalization up and down the Arizona Avenue corridor in order to attract small- and medium-size professional services firms and entrepreneurs. The best vehicle would probably be a specific plan for the area. Specific ideas that should be pursued include the following:

- **Create an urban design plan that ensures high-quality architecture** consistent with Chandler's historic downtown and that emphasizes ways to unify both sides of Arizona Avenue.
- **Link the Downtown specific plan to Chandler's overall economic strategy**, targeting small businesses, creative types, and entrepreneurs interested in locating in an eclectic environment.
- **Strategize about how to make maximum use of downtown's cultural assets** – library, museum, Chandler Center for the Arts, and so forth – to generate more economic activity in the area.
- **Consider concentrated funding and tax breaks for the arts and culture district**, such as creating a tax-free arts zone, which provides tax incentives for both artists and property owners inside the arts district.

Like many cities, Chandler has struggled in recent years to bring the downtown back. But between civic buildings, private office buildings, and new restaurants and shops, downtown is beginning to reveal its potential.

Chandler must take  
downtown revitalization  
to the next level.

## THE BIGGER PICTURE: High Quality Design as a Driver of Prosperity

A creative district in the downtown and along Arizona Avenue is a BHAG – but it is emblematic of a larger effort Chandler must undertake in the 21st Century: High quality community and urban design.

Chandler already has many of the best-designed planned communities in the Phoenix area. But in the 21<sup>st</sup> Century, prosperous cities will have to rethink their designs. Every indication is that the creative entrepreneurs and the top talent aren't satisfied anymore with well-designed but sterile suburban environments. They also want the option of experiencing a more urban setting as well – walkable neighborhoods, with flexible live-work spaces, entertainment and nightlife, and a kind of no-muss-no-fuss loft or condo living.

Most of the city's neighborhoods are already built, of course, and therefore they will remain as they are for a long time – quiet, family-oriented suburban neighborhoods. But in those areas of transition – not just downtown, but other older neighborhoods and emerging business districts as well Chandler must accommodate a more urban lifestyle option within its borders. And the city must adapt its plans and zoning codes to accommodate this possibility, rather than zone it out, as most suburbs do.



# BHAG **THREE**

## **AN INNOVATION ZONE**

**Along Price Corridor, Around the Chandler Airpark, and McClintock Drive and Chandler Boulevard**

Chandler and its City Council are accustomed to thinking that the city revolves around the large, signature corporate campuses like Motorola, Intel, AmeriCredit, Microchip, Freescale, Orbital Science, Toyota Financial, Wells Fargo and Verizon. But in a world where jobs and capital move all over the globe every day, no 21<sup>st</sup> Century city can assume – as Chandler has for so long – that particular private companies will forever provide the economic base required for prosperity.

By planning for economic changes, Chandler can, for example, rethink what to do with the corporate campuses along the Price Road corridor that may not always be needed. And civic leaders can determine how to forge strategic alliances with universities, medical institutions, and other regional entities that are committed to the Greater Phoenix area and will not be moving anywhere else.

The Price Road corridor will play a critical role in Chandler's prosperity in the future. But that role will be different than the role Price Road has played in the past. Instead of being a series of indistinguishable, isolated corporate campuses, the corridor can be judiciously planned as a series of innovation hubs – places where research and industry intersect and where people can rub elbows with each other. Other cities are starting to respond to the new reality that people simply don't enjoy working (or aren't as productive) in the typical isolated campus research parks devoid of human scale or mixed-use vitality.

Mindful of the experiences and new plans of world – class technology hubs such as San Jose and Raleigh (see The Bigger Picture: Retrofitting the Suburban Business Park on page 31), Chandler should be thinking with fresh energy about the future of its suburban campuses and technology corridors. For one idea, Chandler could designate an Innovation Zone

along the Price Road corridor that would serve as a location for a mixed-use research and development environment with flexible spaces and support for new enterprises. The city could also begin proactively planning Chandler Air Park to be a synergistic mixed-use innovation hub, benefiting from the rise in small-jet travel. Developing a distinctive set of “new era campuses and corridors” for Chandler would require a new approach to both real estate development and economic development. Steps should include:

- **Take several “study trips” to places like San Jose and North Carolina** to observe first hand the experiences and new developments underway by these super-technology regions to remain competitive.
- **Envision Chandler becoming famous for a chain of innovation nodes** whose areas are likely to be largely autonomous. Nevertheless, the individual centers, campuses, and research parks benefit from mutual proximity and increased integration. Chandler won't have one super-sized science park, but a dispersed network of centers arrayed across a vast – although integrated – space called 21<sup>st</sup> Century Chandler.



- **Create linkages with Arizona State University and University of Arizona** to determine what role Chandler can play in the valley-wide effort on research and development for biotechnology and nanotechnology. Chandler's role will undoubtedly be different from Phoenix, Tempe, and Scottsdale – but there will be a role, and Chandler should learn from the efforts of those cities in linking university research to new economic spin-offs.
- **Consider the creation of a “third generation” research park somewhere in the Price Road corridor** – an environment that focuses not on large corporate businesses but on a mixed-use environment that provides incubators and small spaces for start-ups, as well as a wide variety of support services on-site such as conference facilities and entrepreneurial networks.
- **Adopt the San Jose model of moving toward industrial condominiums for small businesses** along the Price Road corridor, so that start-up companies can become long-term investors in Chandler real estate, thus giving them a motivation to stay.
- **Engage companies such as Intel and Motorola as partners** in this transitional effort. Work with Intel in particular in determining whether ASU-linked R&D efforts in the Price Road corridor can support their fabrication operations in such a way that Intel's investment in Chandler is strengthened rather than weakened.

## THE BIGGER PICTURE: Retrofitting the Suburban Business Park

To get an idea of how important this BHAG is, Chandler should check out the plans the city of San Jose and North Carolina Research Triangle Park have for refitting the classical suburban corporate campus and science research park, respectively, for a new century.

San Jose is working with Hitachi Global Storage Technologies on a visionary plan to transform 332 acres of an old, sprawling IBM campus on Cottle Road by consolidating the work space – enough to provide 2,600 jobs – on half the land. On the rest, a new neighborhood of 3,000 homes would be built, complete with parkland, a trail and a Main Street-style shopping district. Hitachi bought out IBM's hard disk drive operation in 2002 and plans to keep its headquarters in San Jose but it hopes to create an environment around the campus that will make it more attractive to workers, who can walk to the village for lunch or shopping.

Hitachi and the many other employers who built glitzy headquarters in suburban office parks are realizing that typical company perks – cafeterias, health clubs, child care, banking services under one roof – pale in comparison with the vibrant environment that employers in cities such as San Francisco, Boston, Chicago and New York can offer. They are finding that many of today's young professionals, the creative engine of the knowledge economy, don't want to feel stuck in a glass box – even if it's beautiful. They want to be free to roam and mingle with people of all walks of life, not just their colleagues. Some want to live close to work or at least work near restaurants, coffee shops and bookstores.

They're health conscious (they like to walk), environmentally aware (they want short commutes, services nearby and even mass transit) and fond of entertainment (they want bars, restaurants and theaters). As the competition for these highly-skilled workers heats up, suburban office parks and corporate campuses are rethinking their sterile designs and adding shops, apartments and restaurants to create a slice of city life in suburbia.

North Carolina's Research Triangle Park (RTP) and many other research parks are adapting to new scenarios similar to those of suburban corporate campuses. RTP, one of the oldest, most successful research parks in the world, colocates government research institutions and private R&D companies and builds linkages to the region's universities' research and development strengths to foster intellectual and industrial exchange among them. Responding to the long-time reality that people don't enjoy working in the typical isolated campus research park devoid of human scale or residential, retail and entertainment vitality, RTP is planning to mix uses more and focus on “soft” infrastructure (network opportunities and support services) more in order to stay competitive with new generation research parks around the world.

# CONNECTING TO ARIZONA'S

## Six Big Bets

These BHAGS are really part of a larger reality that Chandler must confront: connecting more closely to Arizona's economic development strategy and, in particular, the state's large, informed, calculated "Six Big Bets" on an innovation future.

In the last three decades, Chandler has prospered by seeking to draw large-scale businesses into the region from elsewhere. But competition is greater now, and Chandler will not succeed in stimulating future economy activity without connecting to a larger regional and state-wide economic development strategy. In particular, the Price Road innovation zone – and innovative economic development strategies throughout the city – must connect to these Six Big Bets:

### Big Bet #1:

**Five Industry Clusters** – Greater Phoenix Economic Council targets five export-oriented, knowledge-intensive clusters to build regional strengths in: high technology, software, biomedical, aerospace, and advanced financial services – all sectors that can deliver high income jobs and propel other development.

### Big Bet #2:

**Arizona State University** – Proposition 301, which citizens approved in 2000, earmarks \$1 billion over 20 years distributed among all three universities to expand external funding for university research, technology transfer, and new business development. Citizens have recognized that top-tier universities are a critical infrastructure for the 21<sup>st</sup> century.

### Big Bet #3:

**Genomics** – \$90 million was raised in 2002 to "jump-start" the bioscience industry by creating TGEN – the Translational Genomics Research Institute. The region is

also developing a "road map" to scale-up Arizona's efforts and activities over the next five years in three areas of existing or emerging strengths – cancer therapeutics, neurological sciences and bioengineering.

### Big Bet #4:

**Science Foundation Arizona** – Plans are underway to establish a \$150-million public-private fund to support science and technology research and attract top-notch research talent to Arizona's universities and research institutes.

### Big Bet #5:

**Excellence in Five O's** – TGen is a great achievement. But Arizona is on track to build centers of excellence not just in biosciences but also in nanotechnology, bioinformatics and information technology, cognition-based technology and construction/sustainability "green" building. Think of them as Arizona's Five Big O's: bio, nano, info, cogno, and condo.

### Big Bet #6:

**Personalized Medicine** – The Virginia G. Piper Charitable Trust has created a \$50-million fund for purposes of attracting to Arizona's public universities, research institutes, and medical centers, 10 world-class scientists, engineers, researchers, and physicians to make Arizona a pioneer in personalized medicine.

## Arizona cities are already connecting to the Six Big Bets

Anyone who pays attention to local news knows that a number of Arizona cities are deliberately and strategically connecting to the Six Big Bets as a way to sharpen their competitive advantage.

- **City of Phoenix commits land in downtown Phoenix and \$50 million to secure TGEN**, a cornerstone in Arizona's bioscience strategy, and is taking steps to build in close proximity the Phoenix Biomedical Campus that will colocate a new ASU-UA medical school, ASU College of Nursing, and some biomedical research efforts.
- **City of Phoenix uses \$250 million of its 2006 voter-approved bond money** to bring a new ASU campus with some 20,000 students to downtown.
- **City of Scottsdale and ASU partner to purchase the Los Arcos Mall** site to be the future home of the ASU-Scottsdale Center for New Technology and Innovation, dubbed SkySong. Scottsdale makes a \$125 million investment in the Center's land and infrastructure. Both parties expect SkySong to be a technology and innovation hub "like no other."
- **City of Scottsdale provides support to Mayo Clinic to create a new biomedical research facility** on Mayo Clinic's Scottsdale Campus to house research laboratories for TGEN, Mayo Clinic and other biomedical research entities.
- **City of Tucson and UA secure \$8 million to establish The Critical Path Institute**, a partnership among the University, U.S. Food and Drug Administration, and SRI International for a first-of-its-kind FDA-affiliated institute to explore ways to accelerate the drug-approval process through new testing approaches and technologies.
- **City of Flagstaff gains "TGEN North"**, a partnership between TGEN and NAU to reinforce the northern end of a biosciences corridor running through the state.
- **City of Surprise establishes a biotechnology incubator**, a facility for housing and supporting start-up companies, to capture economic opportunities spinning off the various Arizona biosciences initiatives.
- **Cities of Phoenix, Scottsdale and Tempe explore the concept of a "Discovery Triangle"** from downtown Phoenix to downtown Tempe to SkySong in south Scottsdale—connected by light-rail for easy interaction among researchers, entrepreneurs, education, and city economic development officials.
- **City of Phoenix opens a new Bioscience High School** in the heart of downtown, near TGEN, so students can benefit from easy and frequent interaction with its scientists and physicians.

# BHAG **FOUR**

## THE MOST CONNECTED CITY

After 25 years of rapid growth, Chandler is now a big city. But it is still a community of manageable scale, which means it can distinguish itself in the 21<sup>st</sup> Century by focusing on bicycling, walking, and other alternatives to driving. Chandler can become known not only as a creative, innovative, and prosperous community in the 21<sup>st</sup> Century, but a city that is a truly “connected” city.

The Boomburb era provided Chandler with a high-amenity setting, especially with regard to parks, open space, and community facilities. All through the Boomburb era, the city worked with residential developers to ensure that these amenities were being put into place throughout the city. As Chandler matures, this endowment of parks, open space, trails, and community facilities must be completed – and connected in innovative ways, so all residents will be able to reach key locations without a car if they wanted to. In order to accomplish these objectives, Chandler should take the following steps:

- **Knit together plans for parks, open spaces, downtown, civic spaces, and neighborhoods into a grand plan for community-oriented spaces**, both public and private, throughout the city. Most people will still drive most places in Chandler. But by focusing both parks/open space and high-amenity development on specific nodes, the city can create a series of oases throughout the city where people can enjoy a different lifestyle when appropriate.
- **Encourage designs that make it possible for people to walk outdoors in these community-oriented spaces**. Before air-conditioning, Arizona communities used shade effectively to blunt the effects of the sun and make being outdoors more pleasant. Without sacrificing any modern conveniences, Chandler can make outdoor living in these community spaces – both parks and urban spaces – more pleasant by using shade and similar techniques.
- **Connect all these community-oriented spaces with an outstanding bikeway system**. Chandler already has the guts of an outstanding bikeway system. This system should be completed, focusing on linking not just parks but also civic spaces such as downtown. By encouraging people to bike to work and to amenities when the weather permits it, Chandler can promote as a place with a healthy lifestyle.
- **Position Chandler for a light-rail extension and create a shuttle system** among the community spaces and innovation hubs. Once a set of park spaces and urban spaces are clustered around nodes with shade, they can be connected through a shuttle system that allows people to traverse the city more easily and conveniently without a car. As a close-in suburb, Chandler should also seek to connect the city – and this linked system of spaces – to the rest of the region by positioning the city to receive a future light-rail extension.

Just as global economic competition in the 21<sup>st</sup> Century will place a premium on distinctive places that offer the option of an urban lifestyle, so too will this competition place a premium on outdoor recreation and healthy living.

## THE BIGGER PICTURE: A Healthy City Has a Competitive Advantage

The idea of Chandler as a community with a variety of transportation choices and outdoor recreation opportunities isn't just a do-gooder idea – it's really part of the larger notion that a “healthy” and “green” community can be a competitive advantage for both business and top talent in the 21<sup>st</sup> Century. Just as global economic competition in the 21<sup>st</sup> Century will place a premium on distinctive places that offer the option of an urban lifestyle, so too will this competition place a premium on outdoor recreation and healthy living.

Arizona is well known for its active lifestyle and outdoor recreation opportunities. But Chandler can stand out from other communities even in the Valley of the Sun by focusing on ways to build an active, healthy lifestyle into everyday life – by promoting biking, walking, and other aspects of physical activity. Such an effort can also take advantage of the impressive array of recreational activities that were created in Chandler during the Boomburb era.

Chandler as a “model healthy city” will not only attract residents and businesses, but it will also play into one of Arizona's Six Big Bets – personalized medicine. As medical treatment becomes more personalized in the 21<sup>st</sup> Century, a big part of medical therapy will not only be prescription drugs but also personalized health and exercise regimes. By establishing itself as “the healthy city,” Chandler will not only serve as a model community providing many different health and exercise options, it could also serve as a possible research testing ground for the impact of physical activity and outdoor recreation on health.

# BHAG FIVE

## CENTER OF A NEW MEGA-REGION

Almost anyone who follows world events has, over the last few years, had what might be termed Friedman Moments. These are times, as you watch the 21<sup>st</sup> Century unfold, when you realize “the world is flat,” a phrase *The New York Times* columnist Thomas Friedman coined to describe global integration and “a great sorting out” of boundaries and roles because of it. In other words, these are times when you check old assumptions and make plans based on a whole new geography.

Global connection is only one part of Chandler’s new geography. The other part is the connection between Chandler and the emerging metropolis that surrounds it. And that metropolis has a much greater geographical reach than one might think at first. Over the next 20 years, the The Valley of the Sun metropolitan area will extend far beyond just Phoenix. As both Phoenix and Tucson boom, they will merge into one large “megapolitan” region – connected by economic, social, and commuting relationships. There will be tremendous opportunity for communities that operate on the cutting edge of this larger metropolitan region.

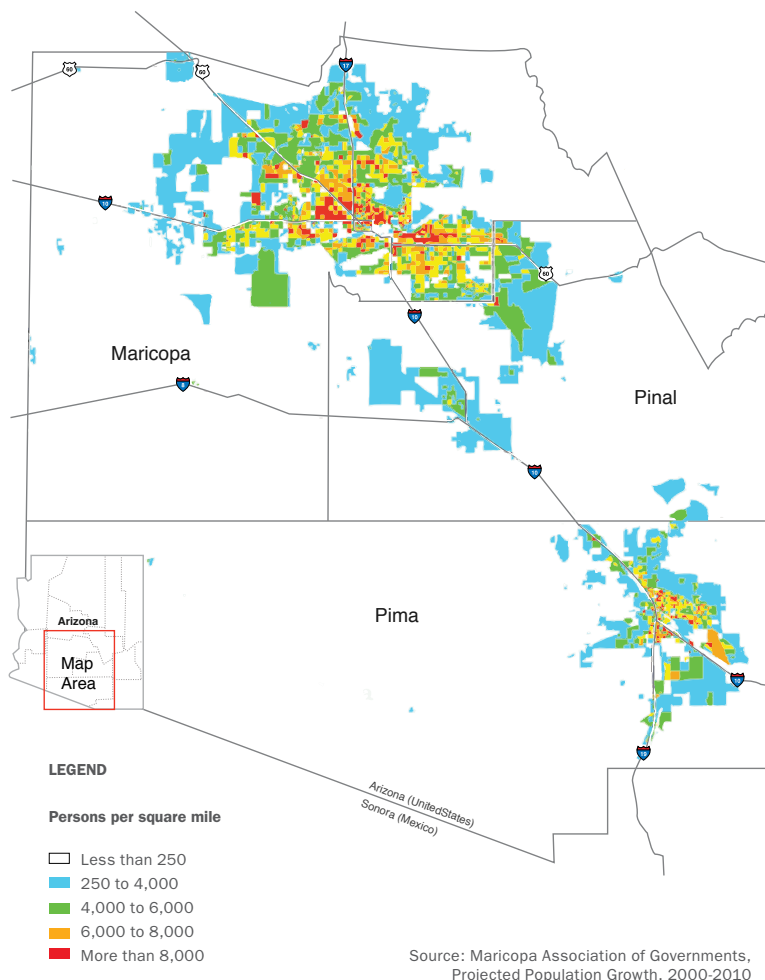
As the southernmost city in Maricopa County, Chandler is well positioned to be the heart of a cutting-edge megapolitan region. In the future, Chandler must connect itself not only to urban Phoenix but also to the emerging suburban communities in Pinal County and the economic power of Tucson.

Most specifically, Chandler should undertake the following steps:

- **Take the lead in creating a technology corridor for the East Valley.** East Valley cities have been discussing a technology corridor for some time. But by creating its own innovation corridor along Price Road – and positioning itself as the place where research meets manufacturing – Chandler can position itself as the catalyst for an East Valley technology corridor. Especially with its strong representation in the state government, Chandler can serve as the focal point for this corridor while working with Tempe, Scottsdale, and Mesa on a strategy.

- **Bring ASU and University of Arizona (UA) together.** Chandler’s location is also perfect for bringing UA and ASU together. BHAG #3 has already identified the need for a connection with ASU. At the same time, UA research park specialists have already visited Chandler as part of this community visioning project. As the location where “research meets production,” Chandler could take the lead in forging a relationship between the two universities, bringing them together for strategic purposes in Chandler.
- **Forge a stronger relationship with the Pinal County communities.** As Chandler’s residential growth slows, Pinal’s will continue to explode. This continued housing growth in Pinal will affect the entire East Valley, especially Chandler. In its role as “the heart of the metropolis,” Chandler should reach out to forge stronger relationships with growing Pinal County communities. In part, this relationship will focus on transportation issues and therefore may include the councils of governments. More important from Chandler’s point of view, however, is the match of jobs in Chandler to housing in Pinal. As Chandler runs out of land for residential growth, the city should partner with Pinal to ensure that new residents of Pinal will be well qualified for new jobs in Chandler.





2010 and beyond: Phoenix and Tucson are on track to merge in the next 10 years, making the region one of 10 megapolitan areas in the country. Chandler is in the center – not the edge – of the merged Phoenix and Tucson-Mega-region.

## THE BIGGER PICTURE: Phoenix and Tucson as a “Megapolitan Region”

America’s metropolitan areas are already geographically very big. Phoenix, for example, stretches all across Maricopa County from Queen Creek to Litchfield Park. But in the future, these metro areas will become even bigger – encompassing many big cities and regions that we currently think of as separate.

Boomburb author, Robert E. Lang of Virginia Tech, and his coauthor, Dawn Dhavale have called these emerging areas “megapolitan” regions. “Mega-regions” are defined as contiguous urban and exurban areas that will have a population of at least 10 million by 2030 and are characterized by cultural similarities and a dense network of economic and transportation connections. They argue that these areas will be the true economic drivers of the 21<sup>st</sup> Century.

Lang and Dhavale have identified 10 such “mega-regions,” including such areas as “Piedmont” (along the I-75 and I-85 corridors in the Southeast) as well as “Southland” (Los Angeles, San Diego, and Las Vegas). Together these 10 mega-regions have only 20 percent of the land area of the U.S., but 40 percent of the population.

One of the 10 mega-regions is a redefined Valley of the Sun that includes both Phoenix and Tucson. Based on recent trends, it is clear that over the next 20 years, suburbanization will bring these two metro areas geographically closer to one another; while economical power and activities of regional institutions of Arizona State University and the University of Arizona – as well as their spinoff medical centers, research parks, and related institutions – will also help to merge the two metropolitan areas.

# CONCLUSION



Over the past quarter-century, the City of Chandler has established itself as a Boomburb unlike any other in America. Although the city has increased its population from 30,000 people to more than 250,000 people, it has done far more than simply grow in size. It has also created a unique economic base for a Boomburb while protecting – and taking advantage of – its distinctive historical character and downtown.

Now, however, it is time for Chandler to take a proactive approach to the post-Boomburb era. With limited land resources, a changing economic base – and a changing role in the Valley of the Sun metropolis – Chandler has the opportunity to “set the pace” for maturing Boomburbs all over the country.

Chandler and its City Council have already taken the first steps toward this effort by conducting a build-out study and re-examining its economic base. But the council must build on those efforts with a comprehensive and multi-pronged strategy designed to:

- **Create vibrant, high-quality places** in select locations that are more urban in character, and link them with alternative transportation.

- **Take advantage of the spin-off business opportunities** that are emerging from Chandler’s large employers.

- **Create partnerships with major institutions** around the region such as the Maricopa County Community Colleges, Arizona State University and University of Arizona.

- **Recognize Chandler’s more central role in the regional economy**, especially as a job center for Pinal County.

With these and other strategies, Chandler can truly lead the way and fulfill its potential not only as a major city in the Valley of the Sun, but as one of the leading examples of suburban to urban transformation in the entire nation.

## The Evolution of Chandler: Then, Now... and Tomorrow

	Exurban 1900-1970's	Boomburb 1970-2000's	Post Suburban 2010+
<b>Economic Identity:</b>	Place to farm and live	Place to live and locate manufacturing facilities	Place to live, generate new knowledge and create businesses
<b>Main Customers:</b>	Farmers, real estate developers, entrepreneurs, blue-collar workers	Families, big high-tech firms, real-estate developers	Knowledge workers, artists, new firms, research institutes
<b>Key Amenities:</b>	Large land parcels, irrigation, inexpensive housing	Good schools, shopping centers, freeways	Good schools, entertainment, interaction (mixed-use, live-work, networks), cultural diversity
<b>Leadership:</b>	Competes for planned communities and freeways	Competes for big high-tech firms and big retail	Competes for talent, knowledge-intensive industry, unique amenities and authenticity

## National Experts

Several experts came to Chandler in February 2006 to meet with the project steering committee and City of Chandler and to speak at a public forum.

- Joe Cortright talked about where top talent wants to live and work – and what Chandler has to do to attract them. Cortright is an economic consultant with Impresa in Portland and author of “The Young and Restless,” a study of where educated young workers are moving and why.
- Bruce Liedstrand, executive director of Communities by Design and former city manager of Mountain View, Google’s headquarter city, discussed how to create and manage the 21<sup>st</sup> Century city – and how to use it to attract innovative firms.
- Bruce Wright and Jackie Kerby Moore, past and current president of the Association of University Research Parks, discussed how to build science and technology corridors – and how Chandler will have to change its “business park” model to succeed in the 21<sup>st</sup> Century.
- Kim Walesh, economic development manager for San Jose, discussed the role of design and creativity in building downtowns and neighborhoods – and how Chandler can leverage these assets to stay ahead in the 21<sup>st</sup> Century.

# NEXT TWENTY

A New, Progressive Agenda for Chandler



**Chandler · Arizona**  
*Where Values Make The Difference*

